

### **REMARKS/ARGUMENTS**

In the specification, the paragraph beginning at p. 3, line 13, has been amended to include reference to element "30" of the figure. Support is found in Figures 7 and 8 and at p. 3, line 21. Also, in the description of figures 8-10, reference to element "10" has been deleted. In Figure 10, reference to element "25" has been deleted.

Claims 1-34 are pending. Claims 3-10, 12, 13, 22, 23, 32 and 34 are withdrawn. Claims 1, 17, 21 and 29 are amended. Claim 1 is amended for clarity so that the preamble is consistent with the method steps and to remove the period following the numbering of the method steps as requested by the Examiner. Support is found in the claim. Claim 17 is amended for clarity. Support is found at p. 23, line 31 to p. 24, line 8. Claim 21 is amended to remove the period following the numbering of the method steps as requested by the Examiner. Claim 29 is amended to clarify the method steps and to remove the period following the numbering of the method steps as requested by the Examiner. Support for the amendment is found in the claims and throughout the specification, for example at p. 6, lines 16-19. No new matter is introduced by way of this amendment.

#### **Election/Restriction**

Applicants note that the Examiner has withdrawn certain claims as a result of the response to restriction requirement. Applicants understand that any elections of species were made solely to facilitate the examination of the claims, and that he is entitled to consideration of additional species upon an indication that a generic claim is allowable.

#### **Specification**

The disclosure is objected to for certain informalities. First, although there is an item 30 in Figure 7, there is no description of item 30 in the Brief Description of the Drawing 7. Second, although the Brief Descriptions of the Drawings 8-10 describe "detection position 10", there is no item 10 in Figures 8-10. Third, although the Brief Description of the drawing 10 describes "upstream universal priming site 25", there is no item 25 in Figure 10.

In response, Applicants have amended the specification. No new matter is introduced by way of this amendment.

#### **Claim Objections**

Claims 1 and 29 are objected to because no period should appear after the label of each method step. While Applicants are unclear as to the basis of this objection, the claims have been re-numbered to delete the periods after the method steps.

Claim 1 is objected to because it recites "a first and second bioactive agent" instead of "a first and a second bioactive agent". Also, "a first and second adapter sequence" should be

“a first and a second adapter sequence”. Applicants have amended the claim as requested by the Examiner.

Claim 17 is objected to because “SPIA” is abbreviated. Applicants have amended the claim for clarity.

In light of the clarifications and amendments, Applicants respectfully submit that the objections of the claims are moot.

### Claim Rejections

#### Rejection under 35 U.S.C. § 112

Claims 1, 2, 11, 14-21, 24-31 and 33 are rejected under 35 U.S.C. § 112, second paragraph. Claim 1 is rejected as vague and indefinite because in step a) it is unclear what is intended. The Examiner indicates that it is unclear how to identify the first and second target molecules using the first and second adapters since the claim does not describe whether the first and second adapters can interact with first and second target molecules or whether the first and second adapters can interact with the first and second bioactive agents.

In response, Applicants note that the claims recite that the first and second target probes (claim 1) or plurality of target probes (claim 29) each contain a bioactive agent, an adapter sequence and at least one upstream universal priming sequence. These components are included in the same target probe. In addition, as noted in the claims, it is the bioactive agent that binds the target molecules; the adapter sequence identifies the unique target molecule that binds the bioactive agent. As noted in the specification at p. 6, lines 7-9, when the adapter identifies the unique target molecule, this indicates that a unique adapter sequence uniquely identifies the target analyte. That is, there is a unique adapter sequence/target pair for each target analyte, although in some cases, adapter sequences may be reused. In addition, at p. 15, lines 3-24 is a description of what is meant by identifies. Basically, by identifies is meant that “while the adapter sequence need not bind itself to the target analyte, the system allows for identification of the target analyte by detecting the presence of the adapter” (which uniquely identifies the target analyte) (see lines 3-5 of p. 15). That is, elucidation or detection of a particular adapter sequence (which may be in amplicons) allows the identification of the target analyte to which the target probe containing that adapter sequence bound. Accordingly, Applicant submits that reading the claims in light of the specification provides a clear explanation of how the target molecules are identified by the adapters.

Claim 1 also is rejected as vague and indefinite because the goal of the claim does not correspond to its method steps. Applicants respectfully traverse.

As noted previously, the adapters serve to uniquely identify the target analyte that is bound by the target probe. Thus, detection of the amplicons, which contain adapters, indicates the presence or absence of the target analyte.

Claims 1 and 29 are rejected as vague and indefinite in view of step (c) because it is unclear what is intended since the detection of the plurality will not indicate the absence of the target molecules in the sample. Applicants respectfully traverse.

As indicated above, the adapter serves to uniquely identify the target analyte that is to which the target probe is targeted. Thus, by detecting the adapter, the presence or absence of the target analyte is indicated.

Claim 29 is rejected as allegedly being incomplete for omitting essential steps. The Examiner indicates that the omitted steps are: separating the bioactive agents and adapter sequences that bind to said plurality of target molecule from unbound bioactive agents and adapter sequences. The Examiner notes that is the plurality of amplicons are amplified from unbound adapter sequences, the detection of the plurality of amplicons will not necessarily indicate the presence of the target molecules.

Without necessarily agreeing with the propriety of the rejection, Applicants note that the claim has been amended to recite that unbound target probes are removed and the remaining probes are amplified. Applicant respectfully submits that this amendment obviates the rejection of the claim.

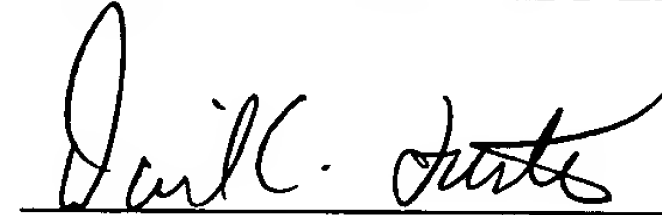
Accordingly, Applicants submit that in light of the claim amendments and clarifications that the rejection of the claims has been overcome. Applicants respectfully request the Examiner to withdraw the rejection.

### CONCLUSION

Applicants submit that the claims are now in form for allowance. An early notification to that effect is respectfully requested.

Respectfully submitted,

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